

REMARKS**INTRODUCTION:**

In accordance with the foregoing, claims 142 and 155 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 142 and 149-174 are pending and under consideration. Reconsideration is requested.

ENTRY OF AMENDMENT UNDER 37 C.F.R. §1.116:

Applicants request entry of this Rule 116 Response because:

- (1) the amendments of claims 142 and 155 should not entail any further search by the Examiner since no new features are being added or no new issues are being raised; and
- (2) the amendments do not significantly alter the scope of the claims and place the application at least into a better form for purposes of appeal. No new features or new issues are being raised.

The Manual of Patent Examining Procedures sets forth in Section 714.12 that "any amendment that would place the case either in condition for allowance or in better form for appeal may be entered." Moreover, Section 714.13 sets forth that "the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified." The Manual of Patent Examining Procedures further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

REJECTION UNDER 35 U.S.C. §102:**1. Rejection of claims 155-58 in view of Mine**

In the Office Action at pages 2-5, the Examiner rejects claim 155-58 under 35 U.S.C. §102(e) in view of Mine (U.S. Patent No. 5,966,358). This rejection is respectfully traversed and reconsideration is requested.

By way of review, Mine discloses a method of recording data sequentially using a type of error processing (slipping processing) which does not require certification pre-processing. (Col. 3, lines 20-25 and 58-63, col. 7, lines 1-7, col. 8, lines 25-35). However, Mine does not suggest that the recorded information includes any specific information that ensures real time reproduction in addition to performing the error processing.

On page 4 of the Office Action, the Examiner clarifies that the claims do not recite the processing of real time information and the file to be real time recorded or to be reproduced. While it is believed that claim 155 previously set forth such a feature, claim 155 has been

amended as indicated in order to more clearly set forth such a feature without narrowing the scope of the claim as would have been understood by one of ordinary skill in the art. As such, it is respectfully submitted that claim 155 recites the use of real time files and real time recording information according to which the real time file is ensured to be reproduced in real time, and that the error processing set forth in Mine does not suggest the use of such information to ensure real time reproduction.

On pages 4-5 of the Office Action, the Examiner relies on the Universal Disk Format (UDF) file system updated in operation S10 as providing the real time reproduction information and since real time reproduction is ensured based upon a size of the blocks as required under the DVD specification. However, it is respectfully submitted that the information contained in the UDF file system did not have a mechanism for ensuring real time reproduction such that, if the blocks are arranged in such a manner that real time reproduction is not possible, real time reproduction does not occur. In essence, Mine discloses recording using a type of the UDF file system which does not ensure real time reproduction since the UDF system then in existence did not provide for such information. As such, while it is noted in col. 8, lines 30-32, the recording apparatus 1 "is capable of recording moving pictures on the real-time basis and reproducing the moving pictures from the recording medium on the real time basis," any such capability is not based on information recorded on the recording medium to ensure real time reproduction and instead depends on whether the files happen to be arranged in a manner allowing for real time reproduction without information in the file indicating real time reproduction is to be ensured.

Instead, while Mine discloses using sectors into which recording units are to be recorded, these sectors are used for the purposes of addressing in order to manage data to be recorded using a file system having logical addresses which is being recorded onto a storage medium having physical addresses. Mine does not suggest that these sectors, or the recording units to be recorded thereon, include or are managed to ensure that the recorded data are reproduced in real time.

Further, there is no suggestion that information including "a size of minimum contiguous storage blocks" is recorded in the file of Mine so as to require real time reproduction as does the invention as set forth in claim 155.

Lastly, to the extent that the DVD format requires real time reproduction as suggested by the Examiner on page 3 of the Office Action, there is no suggestion that the UDF system then in existence had a capability of including information ensuring such real time reproduction according to the DVD standard. It is for this reason that the UDF system was updated to version

2.01, which newly included a real time file identification in the file's ICB Tag as set forth in Section 6.11. As also noted in the Amendment of July 10, 2003 in relation to the rejection of claim 142, the UDF system in effect at the time of Mine was UDF Specification, Rev. 2.0. This version of the UDF Specification did not suggest using real time information in the manner recited in claim 155. It was only subsequent to the filing of the instant application that UDF Specification, Rev. 2.01, was established which even suggests using real time files in the UDF system. It is noted that the redlined version of Rev. 2.01 (previously provided in the Information Disclosure Statement of June 25, 2003) clearly shows a new entry for real time information in new Section 6.11. The addition of this new entry in the UDF file system for ensuring real time reproduction indicates that the UDF version set forth in Mine did not include information for ensuring real time reproduction.

As such, it is respectfully submitted that Mine does not disclose or suggest the invention recited in claim 155.

Claims 156-58 are deemed patentable due at least to their depending from claim 155.

2. Rejection of claim 155 in view of Yasui

On page 5 of the Office Action, the Examiner rejects claim 155 under 35 U.S.C. §102(e) in view of Yasui (U.S. Patent No. 5,999,505). The rejection is respectfully traversed and reconsideration is requested.

By way of review, Yasui teaches a magnetooptical disc 804 which is divided into plural sectors for the purposes of addressing. Each sector has a number for the purposes of addressing, and a size of each sector is set as 2352 bytes. (Col. 7, lines 28-35). During recording and reproducing, the data is managed in clusters, with each cluster being 36 sectors as shown in FIG. 5. (Col. 7, lines 35-47). Moreover, while Yasui teaches using a Real Time Flag in a segment allocation table 800, the Real Time Flag does not include information on a number of sectors or clusters, or that such a number relates to ensuring real time recording or reproduction.

Specifically, the segment allocation table 800 shown in FIG. 6 includes a file name, the address of the start cluster for the file, and length of the file to be recorded and reproduced according to the Real Time Flag. Yasui uses the Real Time Flag to allocate a buffer memory 4 to buffer at least two clusters so that the file is processed in a time continuous manner. (Col. 7, line 54 to col. 8, line 15, col. 10, lines 8-20). However, since Yasui teaches that the indicated length of the file corresponds to the total size of the file, the indicated length in the sector allocation table 800 does not relate to a minimum set of sectors in which data is stored. Moreover, since the size of the clusters is standardized and is used for time-continuous and

time-discontinuous recording and reproduction, the clusters do not relate to real time recording or reproduction.

On page 5 of the Office Action, the Examiner clarifies that, when the Real Time Flag is used, the information in the file is information for ensuring real time recording and/or reproduction. Further, the Examiner asserts that the information of the files are formed by sectors or blocks, and therefore the sectors or blocks have a minimum size for ensuring real time reproduction and/or recording. However, it is respectfully submitted that, since the sector size is set to 2352 bytes such that the minimum size is independent of time continuous (i.e., real time) versus time discontinuous reproduction. Therefore, the Real Time Flag does not include and does need to include information relating to the size of the cluster and instead indicates different reproduction methods in order to provide real time reproduction.

Specifically, Yasui suggests that the Real Time Flag indicates whether the file is to be continuously managed by an interruption handling method, whereas time discontinuous reproduction allows access to the disc 804 only after the read-out/read-in operation is completed. (Col. 8, lines 5-28, col. 10, lines 32-61). As such, the Real Time Flag does not affect the size of the clusters and the size of the clusters is set without regard for whether real time reproduction is to be ensured. Thus, the Real Time Flag does not include size information for minimum contiguous sectors to ensure real time reproduction of the file.

As such, it is respectfully submitted that Yasui does not disclose or suggest, among other features, "recording and/or reproducing a real time file requiring real time recording and/or reproduction on a recording medium according to real time recording and/or reproduction information for ensuring real time reproduction," wherein "the processed real time recording and/or reproduction information includes a size of minimum contiguous storage blocks" as recited in claim 155.

3. Rejection of claims 155-158 and 163 in view of Gotoh et al.

On pages 5-6 of the Office Action, the Examiner rejects claim 155-158 and 163 under 35 U.S.C. §102(e) in view of Gotoh et al. (U.S. Patent No. 6,292,625). The rejection is respectfully traversed, and reconsideration is requested.

By way of review, Gotoh et al. discloses recording AV data in ECC blocks, with each ECC block having 16 sectors. In order to record the AV data, a continuous area large enough to handle the AV file is detected. Once the area is located, the AV data is recorded in ECC blocks. Where a defective sector is encountered, the ECC block with the defective sector is skipped and a next ECC block is used for recording. As shown in C7 of FIG. 3, the file entry of the AV file includes a descriptor which indicates whether a particular extent of ECC blocks is an AV file

or whether the ECC block is a defective extent. The file management system is ISO/IEC 13346 compliant. (Col. 10, lines 9-34 & line 65 to col. 11, line 9). Gotoh et al. teaches that, by replacing skipping defective ECC blocks encountered during recording in a continuous area, the track buffer of the disk reproduction apparatus is able to continuously reproduce data from an ECC block buffered in the track buffer while data is not being reproduced from the disk. However, since Gotoh et al. assumes that the defective ECC block will be sufficiently close to allow continuous reproduction, Gotoh et al. cannot ensure continuous reproduction based on information recorded in the file management system.

On page 9 of the Office Action, the Examiner clarifies that the claims do not clearly set forth that the information is processed when recording or reproducing files requiring real time recording and/or reproduction. While it is believed that claim 155 previously set forth such a feature, claim 155 has been amended as indicated in order to more clearly set forth such a feature without narrowing the scope of the claim as would have been understood by one of ordinary skill in the art. As such, it is respectfully submitted that claim 155 recites the use of real time files and real time recording information according to which the real time file is ensured to be reproduced in real time, and that the processing set forth in Gotoh et al. does not suggest the use of such information to ensure real time reproduction.

Additionally, since Gotoh et al. uses standard ECC blocks managed using an ISO/IEC 13346 type file system, the disclosed file system does not include information which ensures real time recording and/or reproduction for reasons similar to those why the UDF file system then existing does not include information ensure real time recording and/or reproduction. Thus, in order to ensure real time reproduction, Gotoh et al. requires that a continuous area be found which will accommodate the entire file. As such, Gotoh et al. does not disclose a minimum number ECC blocks needed to ensure real time reproduction, or that the file descriptors include information on a number of ECC blocks.

Lastly, since Gotoh et al. relies on standard ECC blocks, Gotoh et al. does not disclose that there is information recorded as to the size of the ECC blocks, or that the size of the ECC blocks relates to real time recording or reproduction since the same ECC blocks are used for non-real time recording or reproduction. Instead, Gotoh et al. teaches storing addresses of defective ECC blocks in the file entry as well as addresses of non-defective ECC blocks for the same AV file. (Col. 8, lines 41-56). There is no disclosure that the file entry includes the size of an ECC block or a size of contiguous ECC blocks needed to perform real time reproduction.

As such, it is respectfully submitted that Gotoh et al. does not disclose the invention recited in claim 155.

Claims 156-158 and 163 are deemed patentable due at least to their depending from claim 155.

4. Rejection of claims 142, 149-151, 153, and 174 in view of Gotoh et al.

On pages 7-8 of the Office Action, the Examiner rejects claims 142, 149-151, 153 and 174 under 35 U.S.C. §102(e) in view of Gotoh et al. The rejection is respectfully traversed, and reconsideration is requested.

Among other features, the Examiner asserts that col. 7, lines 22-23 and FIG. 3 disclose real time recording and/or reproducing information which ensures real time recording and/or reproducing and that is recorded in a file type field of an (ICB) TAG field of a Universal Disk Format (UDF) system. On page 9 of the Office Action, the Examiner clarifies that since Gotoh et al. teaches the use of the (ICB) TAG field, and since the file is a real time reproduction file, the (ICB) TAG field of the real time reproduction file includes information for ensuring real time reproduction.

As a point of clarification, since Gotoh et al. teaches using information as to which portions of a contiguous set of ECC blocks are not to be read, the file entry shown in FIG. 3 does not ensure real time reproducing since Gotoh et al. relies on the existence of a number of contiguous ECC blocks sufficient to record an entire file. Thus, the file entry of the AV file does not ensure that reproduction is performed in real time. In addition, even assuming arguendo that Gotoh et al. teaches the use of a UDF system, it is noted that Gotoh et al. does not suggest using information indicating real time reproduction/recording of data in the management information of the UDF system. Specifically, a file entry C6 includes an allocation descriptor C7 that indicates that the recorded data in a particular continuous extent is AV data, defective data, or padding information. A flag is further set in bit 9 of the ICB TAG field shown in FIG. 26 indicating that the data is a contiguous AV file. As such, during reproduction of the AV data, the file location information in the file entry C6 and C7 can be used to reproduce the AV data relying on defect management information recorded in a defect management area. (Col. 10, line to col. 11, line 9-34; FIGs. 2, 3, and 26 of Gotoh et al.) However, beyond identifying the data as file as being contiguous and the locations of portions of the AV data to be reproduced, Gotoh et al. does not suggest that the ICB TAG identifies that the information ensures real time reproduction.

Moreover, as also noted above in relation to the rejection of Mine, the file management system of the then existing UDF does not provide information identifying the AV data as being real time data. Specifically, the version of the UDF and the ICB TAG known at the time of Gotoh et al. did not include an attribute that allowed an indication that the AV data was to be recorded or reproduced in real time. As also similarly noted in the Amendment of July 10, 2003 in relation

to the rejection of claim 142, the UDF system in effect at the time of Mine and Gotoh et al. was UDF Specification, Rev. 2.0, which did not suggest using real time information in the manner recited in claim 142. In this version, the UDF system was not compatible with the use of real time files since previous UDF systems required verifying data integrity after writing to the disc. However, while appropriate for non-real time files, this type of verification is not necessary or usable in relation to real time recording and reproduction. As such, the file system referenced in Gotoh et al. does not contain real time information in the ICB TAG field such that, assuming arguendo Gotoh et al. teaches real time information, Gotoh et al. does not disclose that any such real time information is in the ICB TAG field. Therefore, the ICB TAG disclosed in FIGs. 25 and 26 of Gotoh et al. does not disclose or suggest real time information that ensures real time reproduction and instead relies upon the structural relationship between recording areas in order to attempt to provide real time reproduction.

Lastly, on page 10 of the Office Action, the Examiner asserts that claim 142 does not positively set forth that the (ICB) TAG field includes an attribute that the AV was to be recorded or reproduced in real time. While it is believed that claim 142 clearly set forth an attribute of the (ICB) TAG field, claim 142 has been amended to clarify this feature without narrowing the scope of the claim as would have been understood by one of ordinary skill in the art.

Thus, it is respectfully submitted that Gotoh et al. does not disclose or suggest, among other features, "recording and/or reproducing the real time recording and/or reproduction information with respect to a file type field, where the file type field is in an (ICB) TAG field of a file entry for a universal disk format (UDF) system" as recited in claim 142.

Claims 149-151, 153 and 174 are deemed patentable due at least to their depending from claim 142.

REJECTION UNDER 35 U.S.C. §103:

1. Rejection of claims 142, 149-151, and 153 in view of Mine, Yasui, and the Universal Disk Format Specification

In the Office Action at pages 11-13, the Examiner rejects claims 142, 149-151, and 153 under 35 U.S.C. §103 in view of Mine, Yasui, and OSTA, Universal Disk Format Specification (2.0). The rejection is respectfully traversed and reconsideration is requested.

Among other features, the Examiner asserts that col. 7, lines 20-30 and col. 8, lines 15-20 of Mine teaches recording and/or reproduction information for ensuring real time reproduction and/or recording and also teaches storing the recording time recording and/or reproduction information in a file entry of a UDF system. As a point of clarification and as similarly noted above in relation to the rejection of claim 155 in view of Mine, Mine does not disclose information that ensures real time recording and/or reproduction.

Additionally, Yasui also does not disclose the use of a UDF system, or where in a UDF system a Real Time Flag should be disposed.

In order to cure this deficiency, the Examiner cites to section 2.3.5 of the Universal Disk Format Specification, which the Examiner asserts teaches that the ICB tag field is well known. However, as similarly noted in the Preliminary Amendment filed December 24, 2003 and the Amendment filed July 10, 2003, Mine does not suggest which field should be used for storing real time information. There is no suggestion in either Yasui or Mine that an ICB TAG field as defined in section 2.3.5 of the Universal Disk Format Specification should be used, and the Examiner has not provided evidence that such a suggestion exists in the prior art to cure the deficiency of the combination as set forth in the amendments filed July 10, 2003 and December 24, 2003.

On pages 12-13, the Examiner asserts that the use of the (ICB) TAG field would have been obvious since the (ICB) TAG field is well known in the art for the purpose of storing information of the file, and since the combination of Yasui and Mine teach reproduction information stored as a file entry. However, there remains no evidence of record as to why the locations set forth in claim 142 should be used for such information. Specifically, even assuming arguendo that the (ICB) TAG field was well known in the field, it is unclear as to why the (ICB) TAG field should be used instead of the remaining fields known in the UDF, such as the File Identifier Descriptor file set forth in Section 2.3.4. It is further unclear as to why the file type should be used within the (ICB) TAG field as opposed to the remaining data fields shown in Section 2.3.5. As such, all that remains is a statement that the use of (ICB) TAG field was known without evidence of record as to why one of ordinary skill in the art would use this particular field.

As noted by MPEP 2143.01, an unsubstantiated statement that existing elements could be combined as it was in the skill of the art to do so does not provide a basis for a rejection under 35 U.S.C. 103(a). Instead, in order to establish a prima facie case for obviousness, the rejection must detail the existence of the individual elements at the time of invention, that there was an existing motivation to combine these elements contained in the then existing art, and that this motivation is beyond an unsupported statement that the combination of these elements was within the skill of the art. In essence, there needs to be proof that such a motivation exists, not conjecture. This rigorous proof is required in order to prevent the trap of impermissible hindsight.

By way of example, MPEP 2143.01 interprets In re Fine, 5 USPQ2d 1596 (Fed. Cir. 1988) as a case where an Examiner applied two references to create the recited invention. Both

the Examiner and the Board of Appeals agreed that it would have been within the skill of the art to make the asserted combination by substituting one detector for another detector. The Federal Circuit reversed on the grounds that the possibility that a combination can be made does not provide sufficient evidence as to why one of ordinary skill in the art, based on the teachings in the references, would be motivated to combine the references. Specific emphasis was made by the Federal Circuit that the suggestion needs to come from the prior art. In re Fine, 5 USPQ2d at 1599-1600. It is respectfully submitted that, even assuming arguendo that the Examiner has demonstrated that the individual elements were in the prior art, there remains insufficient evidence of a motivation to combine the individual features in the recited manner of claim 142.

It is respectfully submitted that there is insufficient evidence of a motivation to record the Real Time Flag of Yasui in the ICB YAG field disclosed in the UDF format specification as is required to maintain a prima facie rejection of claim 142.

Claims 149-151 and 153 are deemed patentable due at least to their depending from claim 142.

2. Rejection of claims 152, 154, 165 and 167 in view of Gotoh et al. and Nakamura

In the Office Action at pages 13-14, the Examiner rejects claims 152, 154, 165 and 167 under 35 U.S.C. §103 in view of Gotoh et al. and Nakamura et al. (U.S. Patent No. 5,745,645). The rejection is respectfully traversed and reconsideration is requested.

As an initial point of clarification, the Examiner does not rely on Nakamura et al. as curing the above-noted deficiency of Gotoh et al. as applied to claim 142, from which claims 152 and 154 depend. As such, it is respectfully submitted that the combination of Gotoh et al. and Nakamura et al. does not disclose or suggest the invention recited in claim 152 and 154 due at least to their depending from claim 142.

Additionally, the Examiner relies on col. 40, lines 60-65 of Nakamura et al. as disclosing recording bit rate information for a video block of a file for continuous reproduction of the video data. By way of review, Nakamura et al. discloses an encoding information table generated by a system controller 200 based on scenario data St7. The encoding information table is shown in FIG. 27 and is used for reproduction of interleaved blocks according to user-defined scenarios whereby different blocks are reproduced according to a user selection of one of plural scenes as shown in FIG. 33. In order to manage the multi-angle scene/multi-angle reproduction, Nakamura et al. teaches the use of an ILVU_MT, which defines a reproduction time for a smallest interleave unit when reproduced at a maximum bit rate without a track buffer experiencing an underflow during interleaved block reproduction. (Col. 40, lines 2-21 and 60-65

of Nakamura et al.)

As a motivation to make the combination, the Examiner asserts that one of ordinary skill in the art would have been motivated to use the ILVU_MT and maximum bit rate information of Nakamura et al. in the device of Gotoh et al. to enable the real time file to be continuously reproduced. However, it is noted that the Examiner does not cite to a source for such an assertion. Moreover, it is noted that, while disclosed as being useful in the context of multi-angle/multi-scene data reproduction for managing interleaved blocks, there is no suggestion in Nakamura et al. that the ILVU_MT and maximum bit rate information would be useful in ensuring real time reproduction of one of the video blocks or of a video title, or that the ILVU_MT would ensure real time reproduction of one of the AV files disclosed in Gotoh et al.

There is further no suggestion that such information should be included in an (ICB) Tag field.

As noted above, in order to substantiate a prima facie obviousness rejection, the Examiner needs to establish that a motivation existed in the prior art to make the combination, and that the motivation needs to be more than an assertion that such a combination could be made. Since the Examiner does not provide a source for the motivation as set forth in the Office Action, it is respectfully submitted that there is insufficient evidence of record to maintain a prima facie obviousness rejection of claims 152, 154, 165 and 167 in view of Gotoh et al. and Nakamura et al.

Lastly, in rejecting claims 152 and 154, the Examiner appears to have directly incorporated the Examiner's previous arguments from the Office Action mailed March 26, 2004, but has not addressed in any apparent form the arguments presented in the Amendment of June 14, 2004. As such, there is no apparent argument which supports the Examiner's continued rejection of the claims in view of the applicant's traversal and which either clarifies the Examiner's position or otherwise advances prosecution. As such, the Examiner has not rebutted the arguments presented by the applicant in the Amendment of June 14, 2004.

As noted in at least MPEP 707.07(f), the Examiner is required to answer and address all traversals. This requirement is in addition to any repetition of a previously held position and is required to allow the applicant a chance to review the Examiner's position as to these arguments and to clarify the record for appeal. Additionally and as further noted in MPEP 707.07(f), a failure of the Examiner to address the applicant's traversals can be deemed a failure to rebut these arguments so as to admit that the arguments have overcome the rejection. At the very least, the failure to address the applicant's traversals would render the Examiner's decision to again reject the claims arbitrary and capricious and invalid under the Administrative Procedures

Act, 5 U.S.C. § 706, the standard under which such rejections are reviewed in view of Dickinson v. Zurko, 527 U.S. 150, 50 USPQ2d 1930 (1999).

As such, since the Examiner has not addressed the applicant's traversals presented in the Amendment of June 14, 2004, it is respectfully requested that the Examiner withdraw the Final Office Action and issue a new Office Action addressing the Amendment of June 14, 2004. Therefore, it is respectfully requested that the Examiner both withdraw the finality of the Office Action, and issue a corrected non-Final Office Action. See, MPEP 706.07(d).

STATUS OF CLAIMS NOT REJECTED IN OFFICE ACTION

On page 14 of the Office Action, the Examiner objects to claims 159-162, 164, 166, 168, and 170-73 as depending from rejected claims.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited. At a minimum, this Amendment should be entered at least for purposes of Appeal as it either clarifies and/or narrows the issues for consideration by the Board.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited and possibly concluded by the Examiner contacting the undersigned attorney for a telephone interview to discuss any such remaining issues.

If there are any additional fees associated with the filing of this Response, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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